

# Why GREY HAIR

OFE 1987



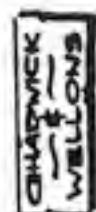
THE PROTEIN IN HUMAN HAIR CONTAINS A SUBSTANCE CALLED MELANIN, THE PIGMENT WHICH DARKENS HAIR. MELANIN STAYS THE SAME NO MATTER WHAT THE HAIR COLOR IS. DIFFERENT HAIR COLORS RESULT FROM DIFFERENT AMOUNTS OF MELANIN, THE MORE OF THE PIGMENT - THE DARKER THE HAIR. AS A PERSON AGES THE PRODUCTION OF MELANIN BEGINS TO DECREASE AND **GREY BEGINS TO FORM.**

OUR FASCINATING EARTH

By Philip Seff, Ph.D.

# THE PROFESSOR WHO WANTED TO GO **Fishing**

OPE 1967



WHEN AN ANIMAL DIES AND UNDERGOES NATURAL BURIAL, ITS ORGANIC MATERIAL MAY BE REPLACED BY INORGANIC SUBSTANCES, USUALLY SILICA.

THUS, DURING THE MILLENNIA, THE ANIMAL BECOMES PRESERVED. AT A LEADING UNIVERSITY A PROSPECTOR RECENTLY BROUGHT 6 PETRIFIED FISH TO A GEOLOGY PROFESSOR. THE FISH HAD BEEN BEAUTIFULLY PETRIFIED IN **PRECIOUS OPAL**. THE EYES ALONE WERE ENORMOUS PRICELESS GEMSTONES. THE DISCOVERY SITE REMAINS A CLOSELY GUARDED SECRET.

# OUR FASCINATING EARTH

By Philip Seff, Ph.D.



## "I DON'T SOUND LIKE THAT"

WHEN A PERSON LISTENS TO A TAPE OF HIS OWN VOICE, THE SOUND IS ALWAYS DIFFERENT FROM WHAT HE HEARS WHILE SPEAKING.

SPEECH THAT OTHERS HEAR IS A VIBRATION COMING FROM THE LARYNX AND CONDUCTED THROUGH AIR. THE SPEAKER HEARS VIBRATIONS DIRECTED THROUGH **FLUIDS** OF THE INNER EAR. SINCE SOUNDS TRANSMIT DIFFERENTLY THROUGH AIR AND LIQUID, YOUR TAPE RECORDER ISN'T LYING; THE SOUNDS ARE DIFFERENT!

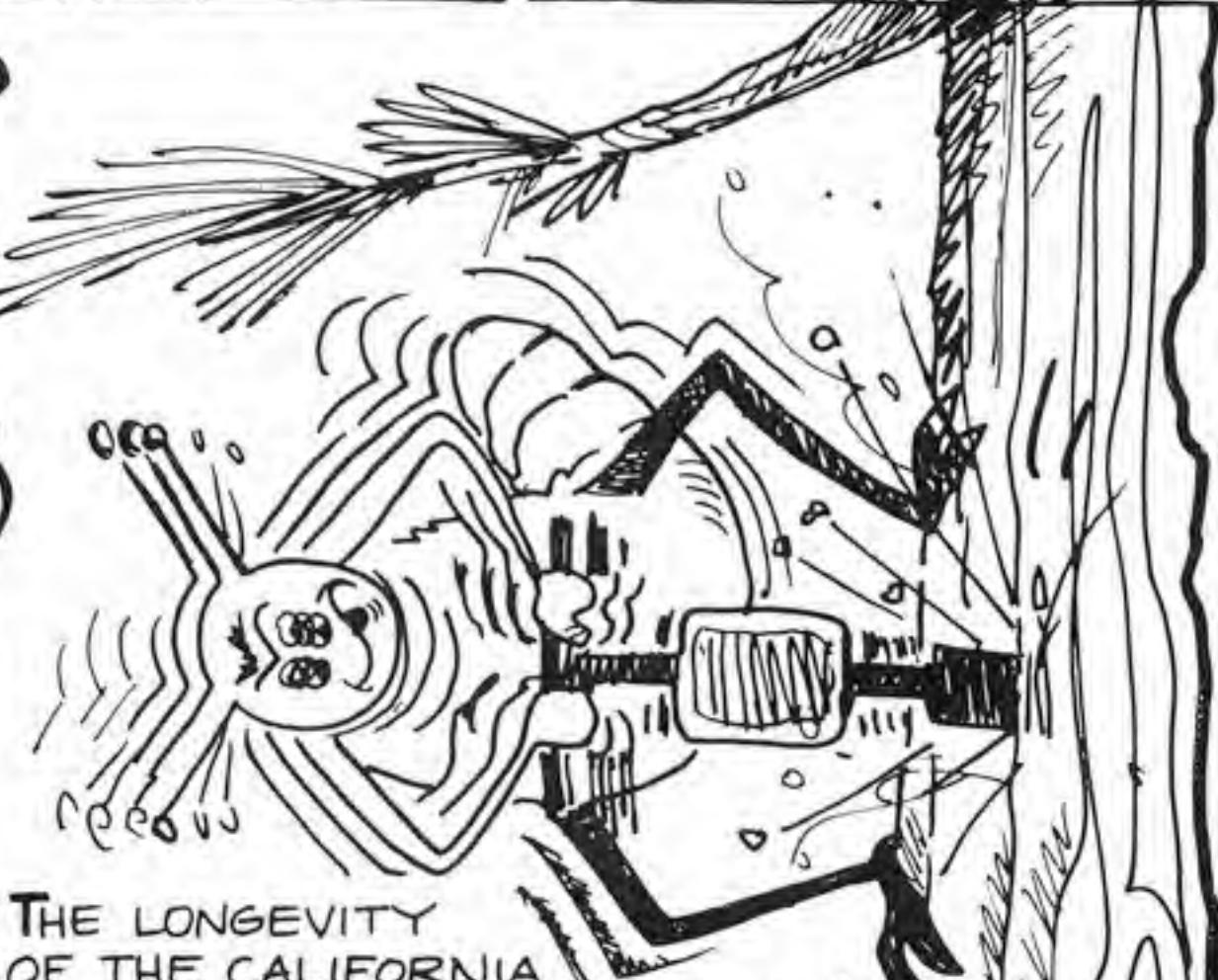
OUR FASCINATING EARTH

By Philip Seff, Ph.D.

*Almost*

**INVINCIBLE**

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THE LONGEVITY  
OF THE CALIFORNIA  
SEQUOIA IS DUE  
LARGELY TO ITS BARK

WHICH IS SO THICK, ALMOST **2 FEET**,  
AND SO HIGHLY FLAVORED WITH TANNIN  
IT IS INVULNERABLE TO ATTACK BY  
INSECTS. THE SPONGY, FIBROUS BARK  
IS NEARLY AS FIREPROOF AS **ASBESTOS**.  
ONE TREE STRUCK BY LIGHTNING IN  
JULY SMOLDERED WITHOUT APPARENT  
DAMAGE UNTIL A SNOW STORM PUT OUT  
THE FIRE IN **OCTOBER!**



THE  
*Big Sleep*

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THERE IS, SURPRISINGLY, ONLY ONE ARCTIC ANIMAL THAT **TRULY HIBERNATES**--- THE ARCTIC GROUND SQUIRREL.

IN OCTOBER IT BUILDS A SPECIAL DEN AND GOES INTO A LONG, DEEP SLEEP LASTING ABOUT 7 MONTHS. DURING THAT TIME BODY TEMPERATURES DROP FROM 97.5° F. TO 62.6° F. BREATHING DROPS FROM 60 TO ONLY 2 OR 3 BREATHS PER MINUTE, AND THE HEART BEATS ONLY ONCE EVERY 2 OR 3 MINUTES. THIS IS **REAL HIBERNATION!**

# OUR FASCINATING EARTH

By Philip Seff, Ph.D.



70 MILLION YEARS AGO FLOOD WATERS SWEPT THROUGH A DINOSAUR NEST, CRACKING OPEN 2 OF THE EGGS AND SPILLING THE PARTIALLY FORMED REPTILES ONTO THE FLOOR BESIDE THEIR STILL INTACT SIBLINGS. SCIENTISTS UNEARTHED THE ENTIRE NEST, INCLUDING THE TWO EMBRYOS, IN SOUTHERN ALBERTA. UPON EXAMINING THE SKELETONS, THEY NOTED THE TEETH WERE WORN SMOOTH. EVIDENTLY THE BABIES GROUND THEIR TEETH WHILE STILL WITHIN THE EGG!

OUR FASCINATING EARTH

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THE AVERAGE SMOKER INHALES ABOUT 1 1/2 PACKS OF CIGARETTES PER DAY. PERHAPS THIS DOES NOT SEEM LIKE MUCH, BUT THAT PERSON WILL SMOKE ALMOST 11,000 CIGARETTES PER YEAR. THE HEAVY SMOKER MAY CONSUME AS MANY AS 30,000 CIGARETTES PER YEAR. INCREDIBLY, THE NON - STOP CHAIN SMOKER USES ALMOST 40,000 CIGARETTES ANNUALLY. NEITHER LIFE EXPECTANCY NOR LIFE QUALITY FOR THESE PEOPLE IS CONSIDERED GREAT!

OUR FASCINATING EARTH

By Philip Seff, Ph.D.

# HURRICANES

--- A. BLESSING?

BOY! I BET  
THIS'LL REALLY  
HELP THE WATER  
SHORTAGE..!

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CHADWICK  
WELLONS

DESPITE THEIR DESTRUCTIVE POWER,  
HURRICANES ARE A PARADOXICAL NECESSITY.  
THEY HELP MAINTAIN HEAT BALANCE  
WORLDWIDE BY ACTING AS A SAFETY VALVE TO  
RELEASE EXCESS ENERGY. THEY LIFT MILLIONS  
OF TONS OF SEA WATER, DROPPING IT ON LAND  
AS SALT-FREE WATER, THUS REVIVING CROPS  
AND REPLENISHING SUPPLIES OF STORAGE  
WATER. THE HURRICANE OF JUNE, 1945 RELIEVED  
ONE OF THE WORST DROUGHTS IN FLORIDA'S  
HISTORY!

OUR FASCINATING EARTH

By Philip Seff, Ph.D.

# THE POLAR TIGER



FOSSIL EVIDENCE INDICATES THE TIGER ORIGINATED AS A COLD WEATHER ANIMAL. SCIENTISTS ARE STUDYING THE SIBERIAN TIGER INTENTLY BECAUSE IT REFLECTS THE LIVING HABITS OF THE ANCESTRAL TIGER. THIS ANIMAL IS AS RESISTANT TO WINTER COLD AS THE POLAR BEAR, AND VERY UNCOMFORTABLE DURING THE SUMMER HEAT. SCIENTISTS BELIEVE THE TIGER'S COLONIZATION OF TROPICAL AREAS IS A RELATIVELY RECENT EVENT IN THE EVOLUTIONARY TIME SCALE.

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CHADWICK  
WELLONS

OUR FASCINATING EARTH

By Philip Seff, Ph.D.

OLDEST  
KNOWN

# FLYING REPTILE

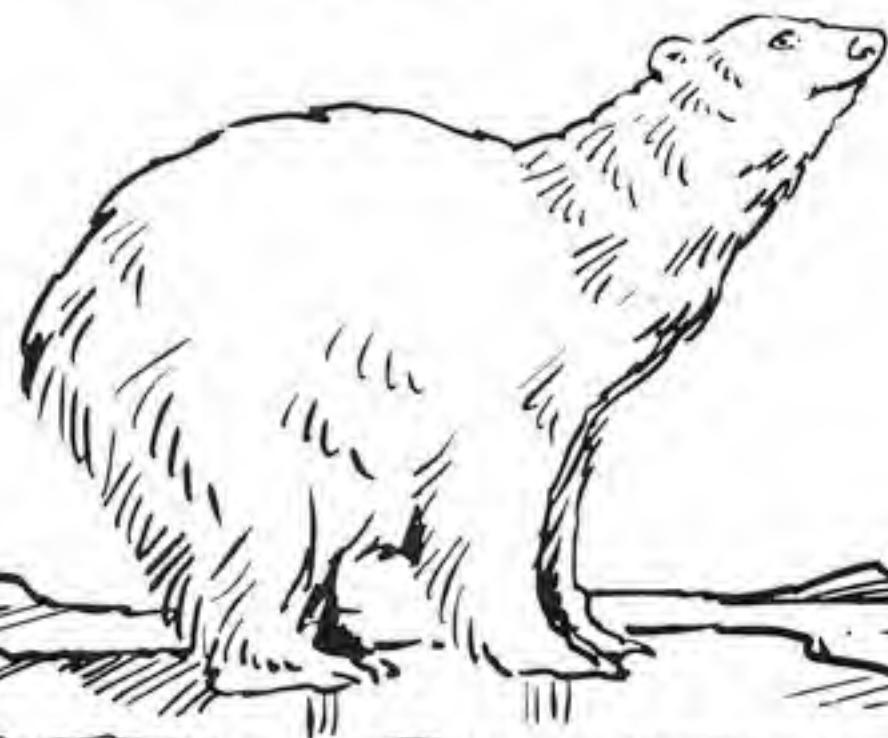
CHADWICK & WELLONS

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COMPETITION FOR THE SKIES BEGAN ABOUT 200 MILLION YEARS AGO.

DIMORPHODON, THE OLDEST KNOWN REPTILE SPECIES TO ACHIEVE TRUE FLIGHT, WAS THE SIZE OF A LARGE HAWK. IT HAD A RATHER LARGE HEAD AND WAS PROBABLY CARNIVOROUS. SO BEGAN A LONG SUCCESSFUL GROUP OF FLYING REPTILES, THE PTEROSAURS, WHICH PERSISTED FOR ABOUT 100 MILLION YEARS, AND EVOLVED SPECIES WITH WINGSPANS UP TO 60 FEET !



# POLAR BEAR

A MARINE MAMMAL?

MANY ZOOLOGISTS CONSIDER THE POLAR BEAR TO BE MORE OF A MARINE MAMMAL THAN A LAND CREATURE. THE ANIMAL SPENDS A GREAT AMOUNT OF ITS TIME IN THE WATER. IT CAN SWIM LIKE A SEAL, WITHOUT USING ITS HIND LEGS. POLAR BEARS HAVE BEEN SEEN 300 MILES AT SEA, SWIMMING TIRELESSLY WITH CUBS, MAKING BETTER THAN THREE MILES PER HOUR. THEY SEEM TO KNOW UNFAILINGLY WHERE THEY WERE GOING!

# GONE

## BUT NOT FORGOTTEN

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WELLONS

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### THE DODO

WAS AN AWKWARD,  
TURKEY-SIZED BIRD  
DISCOVERED ON THE  
ISLAND OF MAURITIUS IN  
1507. BEING FLIGHTLESS, EASILY  
CAUGHT, AND SWEET TASTING, IT  
WAS VULNERABLE TO  
PREDATORY SAILORS. SHIPS  
OFTEN STOPPED AT MAURITIUS  
TO REPLENISH THEIR LARDERS.

THE  
BIRDS  
WERE SO  
INDISCRIM-  
INATELY  
KILLED THAT  
FEWER  
THAN 200  
YEARS

AFTER THEIR DISCOVERY,

DODOS WERE

COMPLETELY EXTINCT. "DEAD AS A DODO"  
IS NOW A COMMON EXPRESSION.



# SAHARAN ART GALLERY

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WELLONS  
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IN 1850  
HEINRICH  
BARTH,  
A GERMAN  
EXPLORER  
WITH  
A NOMADIC  
CARAVAN, MADE  
CAMP IN THE  
SAHARA DESERT.



LOOKING AT NEARBY SANDSTONE CLIFFS, BARTH NOTICED NUMEROUS CARVINGS OF GRASSLAND ANIMALS WHICH ARE COMPLETELY ALIEN TO THE SAHARA TODAY. HE HAD DISCOVERED AN ANCIENT ART GALLERY WHICH REFLECTED CONDITIONS THAT EXISTED IN THE AREA OVER 9000 YEARS AGO, WHEN THE SAHARA WAS GREEN AND FERTILE!

OUR FASCINATING EARTH

Phil & Nancy Seff

# PALEOLITHIC BISON HUNTERS

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LATE STONE AGE MAN OF SPAIN, 15,000 B.C., CLEARLY DEMONSTRATED A PREFERENCE FOR HUNTING THE BISON. THE EXQUISITE CAVE PAINTINGS OF ALTAMIRA SUGGEST GREAT RESPECT FOR THE ANIMAL. AUTHORITIES BELIEVE THEIR MOST EFFECTIVE HUNTING METHOD WAS TO SEPARATE A BISON FROM THE HERD AND DRIVE IT INTO A SWAMP OR A BLIND VALLEY. HERE IT COULD BE KILLED WITH A MINIMUM OF DANGER.

# OUR FASCINATING EARTH

OUR FASCINATING EARTH .

Phil & Nancy Seff

## WHY ESKIMOS

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ESKIMOS LIVE IN THE ARCTIC REGIONS WHERE  
TEMPERATURES RARELY GO ABOVE FREEZING.

BECAUSE  
THEY ARE  
I SHORT.



AVERAGE 5' 2", THEY LOSE LITTLE BODY HEAT.  
THEY BURN FOOD RAPIDLY, WHICH REGULATES  
BODY TEMPERATURE, AND BLOOD VESSELS ARE  
ARRANGED SO THAT MORE BLOOD FLOWS TO  
EXPOSED PARTS SUCH AS HANDS AND FACE. THUS,  
ESKIMOS ARE ABLE TO WORK BARE-HANDED IN  
SUBZERO TEMPERATURES WITHOUT  
ANY COMPLICATIONS!

# WHEN ZEUS LAUGHS

THE ANCIENT GREEKS EXPLAINED LIGHTNING AS THE BOLTS HURLED BY THE GOD ZEUS, AND THEY WORSHIPPED THE GROUND WHERE IT STRUCK. SOME OF THE FREAK ACTIONS RESULTING FROM LIGHTNING STRIKES COULD ALMOST MAKE ONE BELIEVE ZEUS IS ACTUALLY AT PLAY.



LIGHTNING ONCE SET FIRE TO A BUILDING, THEN STRUCK A NEARBY FIRE ALARM THUS CALLING OUT THE FIRE BRIGADE TO FIGHT THE FIRE. PEOPLE STRUCK BY LIGHTNING HAVE AT TIMES BEEN RELATIVELY UNHARMED BUT LEFT STARK NAKED WITH THEIR CLOTHES SCATTERED IN FRAGMENTS OVER A WIDE AREA.

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THE U.S. NATIONAL SAFETY COUNCIL REPORTED A SOLDIER WHO WAS WELDED INTO HIS SLEEPING BAG WHEN LIGHTNING STRUCK THE ZIPPER. DURING A RECENT STORM LIGHTNING CAUSED AN ELECTRIC CLOCK TO STOP. MINUTES LATER IT STARTED AGAIN --- BUT THE HANDS WENT BACKWARD AT TWICE THE NORMAL SPEED! 2/7

# Our Fascinating EARTH

By PHILIP SEIFF PhD & DAVID C BAER II

## BATTLEGROUND OF THE GODS

WHEN MOUNT MAZAMA IN OREGON DRAINED ITSELF OF LAVA AND COLLAPSED, IT FORMED WHAT IS NOW CALLED CRATER LAKE NATIONAL PARK. EVIDENCE INDICATES THERE WERE HUMAN WITNESSES TO THIS EVENT. THE KLAMATH INDIANS TELL OF EARTH-SHATTERING EXPLOSIONS AND MOUNTAINS THAT SPEW FIRE AND CALL THE AREA A BATTLEGROUND OF THE GODS. ARCHEOLOGICAL EVIDENCE SUPPORTS THE LEGEND, AS ARTIFACTS HAVE BEEN FOUND BENEATH THE VOLCANIC ASH.

